

REMARKS/ARGUMENTS

Reconsideration and allowance in view of the foregoing amendment and the following remarks are respectfully requested.

Claims 1 and 25 were objected to as including informalities. Claim 1 and 25 have been corrected as requested by the Examiner. With regard to claim 3, it is respectfully noted that the previously used spelling of "revascularised" is an accepted spelling of this term. However, in view of the Examiner's objection, the more common "American" spelling has been provided in amended claim 3 above.

In view of the amendments made, reconsideration and withdrawal of the objection to the claims is solicited.

Claims 1, 4, 5, 7, and 23-25 were rejected under 35 USC 102(b) as being anticipated by Stadler, incorporating by reference Mouchawar et al and Moberg.

Claims 1 and 25 have been amended above to include the feature of determining and comparing frequency distributions. This corresponds to the two main embodiments (Examples 1 and 2) described in relation to Figures 2-12 in paragraphs [0047] and [0105] as labeled in the publication of this application. Detailed disclosure of this feature may be found in particular in paragraphs [0053], [0054], [0057], [0063], [0065], [0094], and [0100]. Claims 1 and 25 have further been amended to emphasize that the sensor is fastened to and registers movement of an outer surface of the heart and that the acceleration signal describes the acceleration over time. Disclosure of these features can be found in particular in paragraphs [0005] and [0050].

Anticipation under Section 102 of the Patent Act requires that a prior art reference disclose every claim element of the claimed invention. See, e.g., Orthokinetics, Inc. v. Safety Travel Chairs, Inc., 806 F.2d 1565, 1574 (Fed. Cir. 1986).

While other references may be used to interpret an allegedly anticipating reference, anticipation must be found in a single reference. See, e.g., Studiengesellschaft Kohle, G.m.b.H. v. Dart Indus., Inc., 726 F.2d 724, 726-27 (Fed. Cir. 1984). The absence of any element of the claim from the cited reference negates anticipation. See, e.g., Structural Rubber Prods. Co. v. Park Rubber Co., 749 F.2d 707, 715 (Fed. Cir. 1984). Anticipation is not shown even if the differences between the claims and the prior art reference are insubstantial and the missing elements could be supplied by the knowledge of one skilled in the art. See, e.g., Structural Rubber Prods., 749 F.2d at 716-17.

Stadler relates to recording and analyzing electrograms (EGM) for detection of ischemia using directional electrodes arranged with orthogonal sensing axes.

The only mention of accelerometer sensors is in the paragraph bridging columns 28 and 29, where references to Mouchawar and Moberg are made. In this paragraph, nothing is disclosed about the type (e.g. along how many axes the accelerometer is sensitive); the positioning of the accelerometer; or the analysis of accelerometer data.

Hence, Stadler does not contribute anything relating to the use of an accelerometer on top of Mouchawar and Moberg, and is not considered relevant for the present application. If the rejection based on Stadler is maintained in any respect, Applicant kindly requests that the Examiner specifically identify where in Stadler the referred disclosure can be found.

Mouchawar relates to deriving a hemodynamic indicator from cardiac wall acceleration signals. Moberg shows motion sensors integrated in large electrodes to be permanently fastened to exterior portions of the heart.

The invention as claimed in claims 1 and 25 differs from both Mouchawar and Moberg in that the acceleration signal describes

- the acceleration of said selected position in three directions, and in that
- the analysis comprises determining a frequency distribution of the recorded acceleration signal and comparing the determined frequency distribution with a frequency distribution recorded previously.

For these reasons, Applicant respectfully submits that present claims 1 and 25 are not anticipated by the cited prior art and, as a consequence, should be allowed under 35 USC § 102(b).

Claims 2 and 3 were rejected under 35 USC 103(a) as being unpatentable over Stadler in view of Matsumoto. Further, claim 6 was rejected under 35 USC 103(a) as being unpatentable over Stadler in view of Dickinson. Even further, claim 8 was rejected under 35 USC 103(a) as being unpatentable over Stadler in view of Hess. Applicant respectfully traverses these rejections. Each of these claims are submitted to be patentable over Stadler for the reasons advanced above. The Examiner's further reliance on the secondary references does not overcome the deficiencies of the primary reference noted above. In this regard, it is noted that the inventors have found that a change in the frequency distribution of the signal can be used to indicate insufficient blood supply to specific areas of the heart, potentially leading to ischemia in these areas. Hence the measurement and analysis of claims 1 and 25 may be useful when detecting abnormalities of the heart muscle in such area, e.g., resulting from insufficient blood supply to the area.

The cited prior art does not, taken alone or in combination, lead the person skilled in the art in the direction of the invention. The invention specified in claims 1 and 25 is therefore not obvious and, as a consequence, should be allowed under 35 USC § 103.

ELLE et al
Appl. No. 10/500,033
June 24, 2008

All objections and rejections having been addressed, it is respectfully submitted that the present application is in condition for allowance and an early Notice to that effect is earnestly solicited.

Respectfully submitted,

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